Important run numbers where new triggers were implemented.
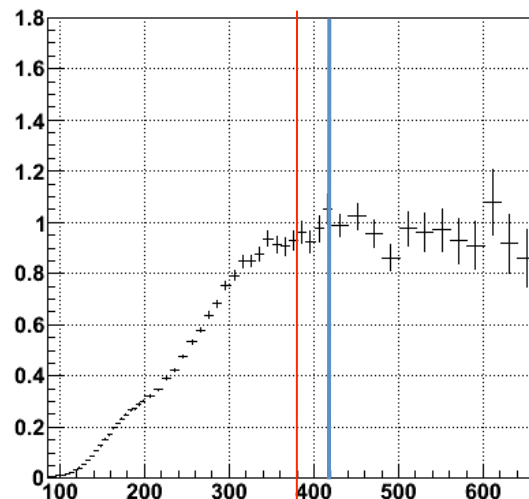
❑ Upto run 147116 - we have 15U, 30U, 50U, 70U, 100U
❑ From run 147196 we have 70U_v2, 100U_v2, 140U_v1 + 15U, 30U, 50U
• This configuration goes upto run 148058.
❑ From run 148822 we have new triggers again: 180U_v3 gets introduced here.
❑ Upto run 148864 we have: 70U_v3, 100U_v3, 140U_v3, 180U_v3 +
15U_v3, 30U_v3, 50U_v3

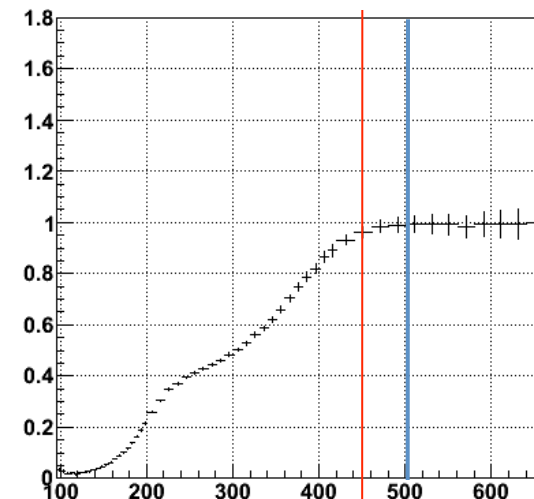# Turn On's for Jet30U, Jet50U, Jet70U
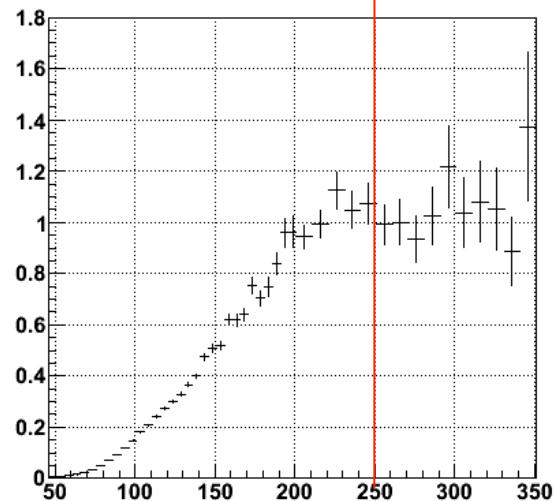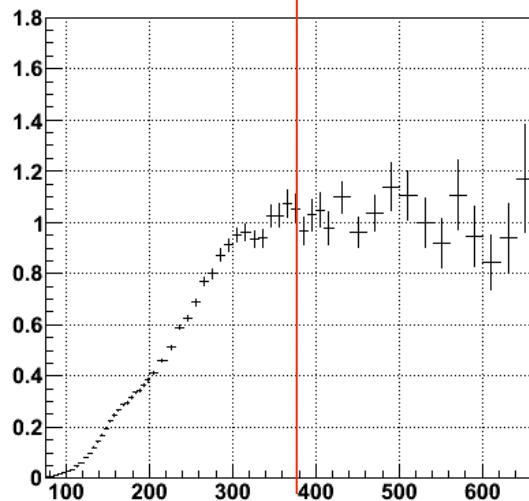
Turn on for HLT_Jet70U_v2, HLT_Jet70U
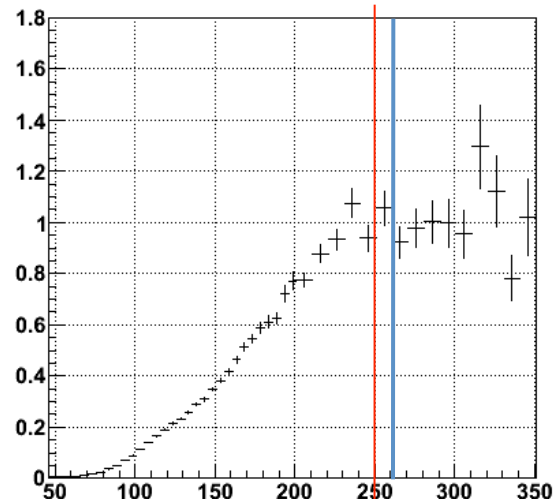
Efficiency of HLT_Jet70U (AK7)

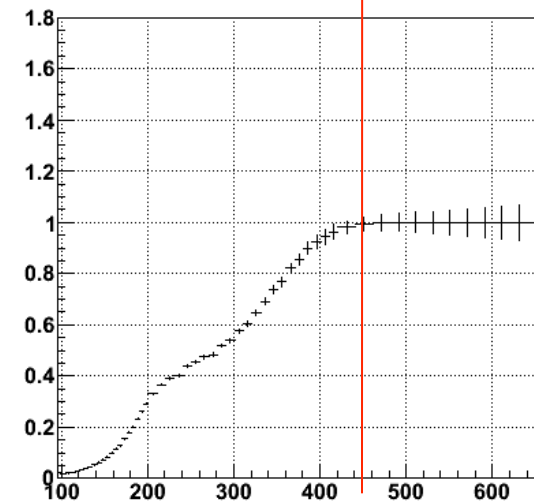Efficiency of HLT_Jet70U_v2 (AK7)

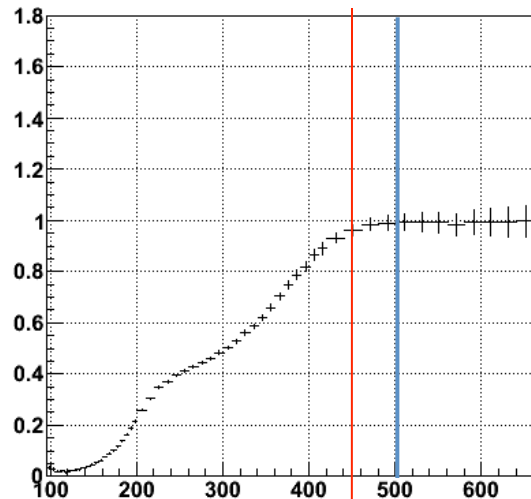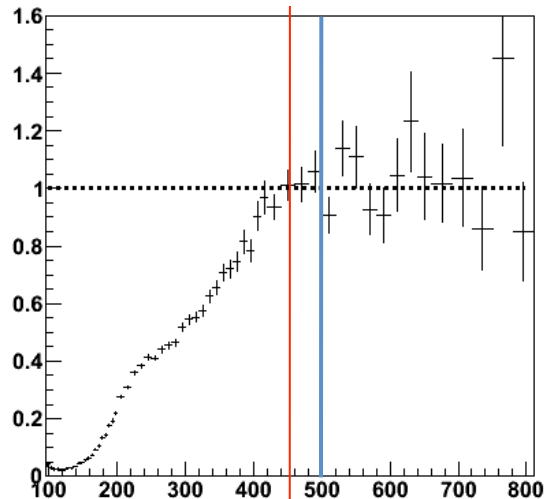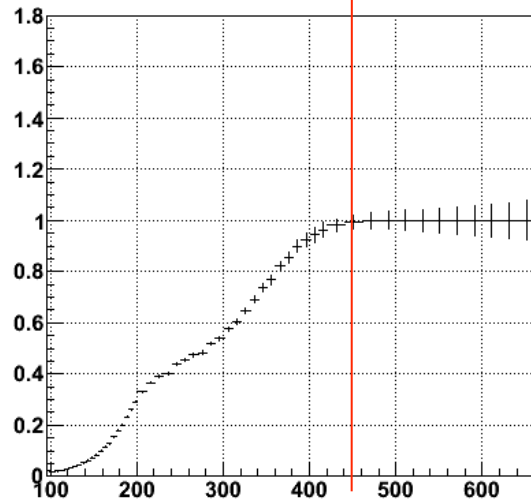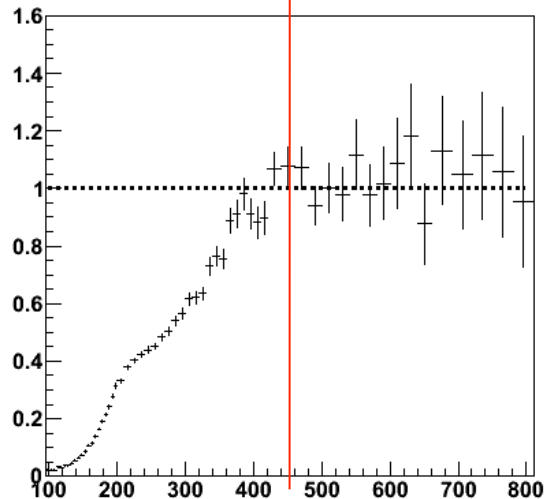Efficiency of HLT_Jet70U (AK5)

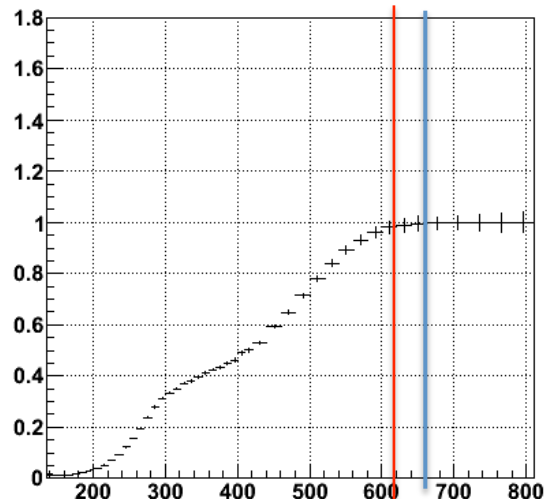Efficiency of HLT_Jet70U_v2 (AK5)

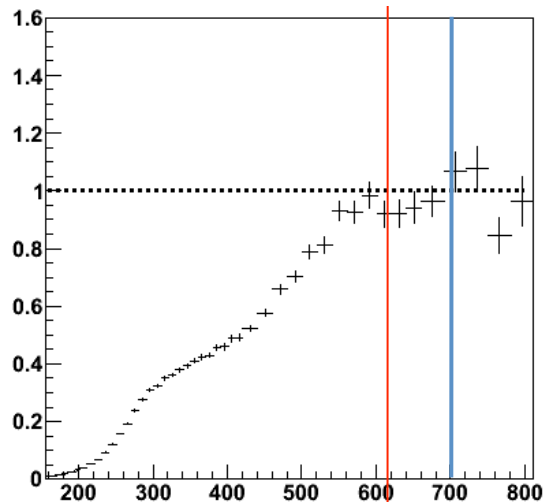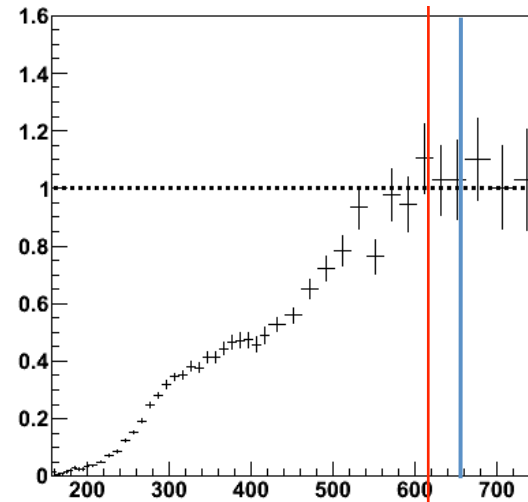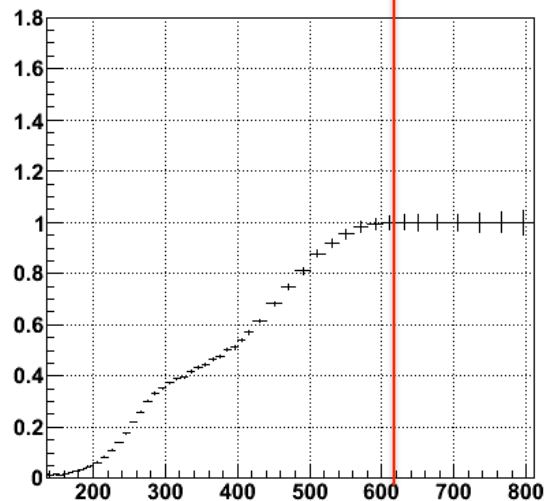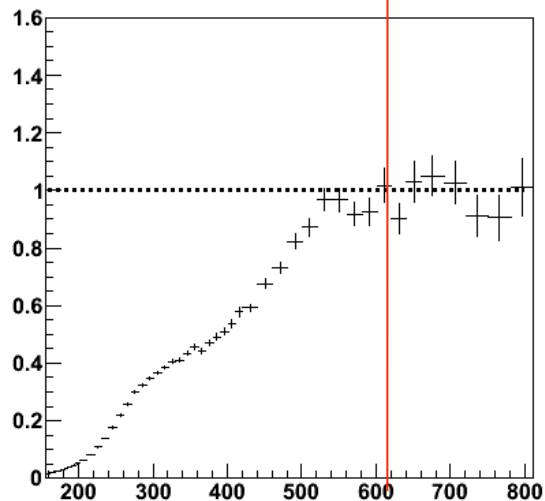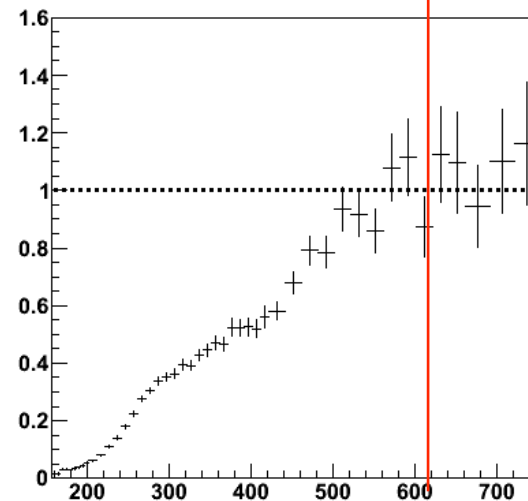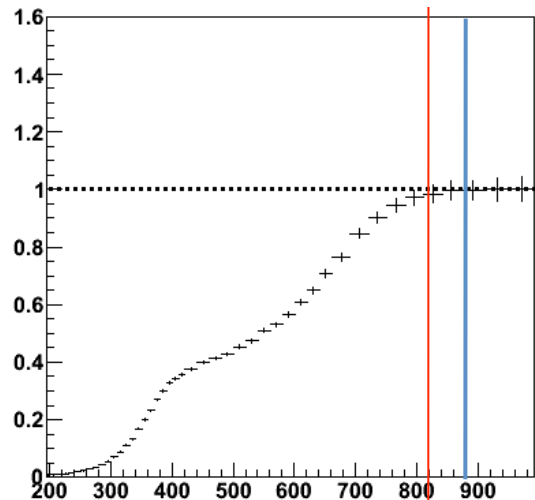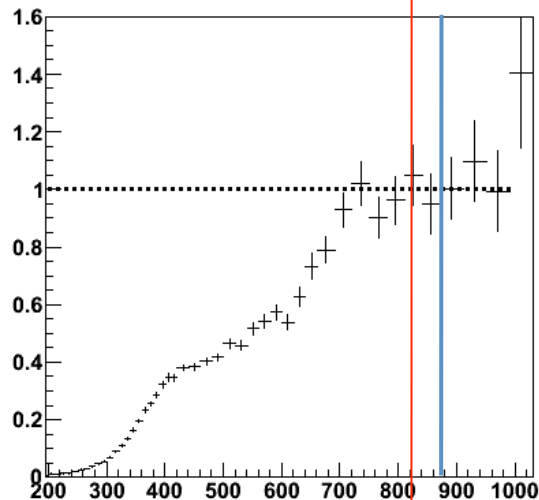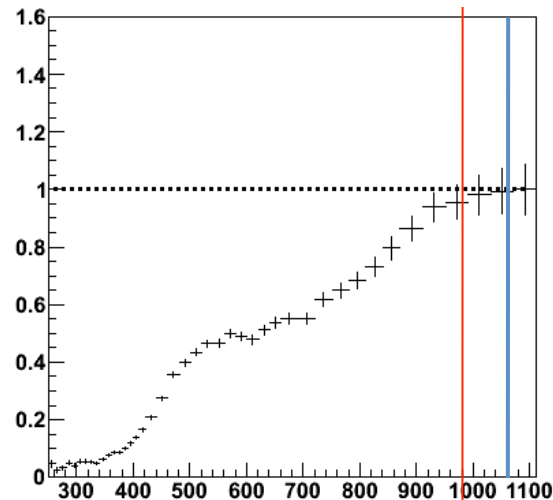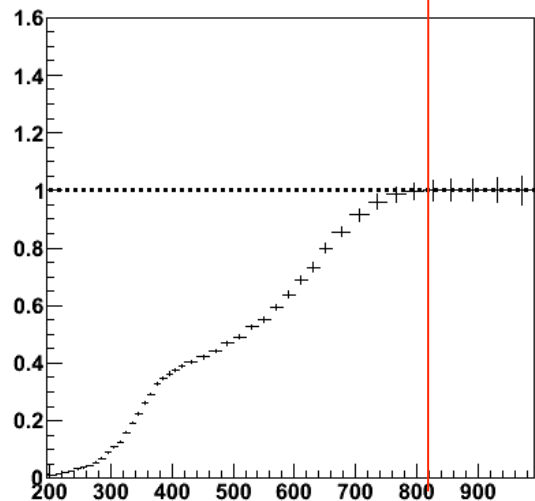# For Jet100U, Jet100U_v2, 100U_v3

For Jet140U_v1, Jet140U_v3, 180U_v3
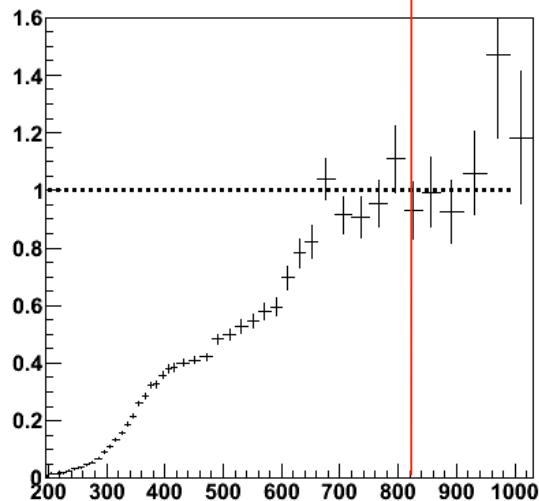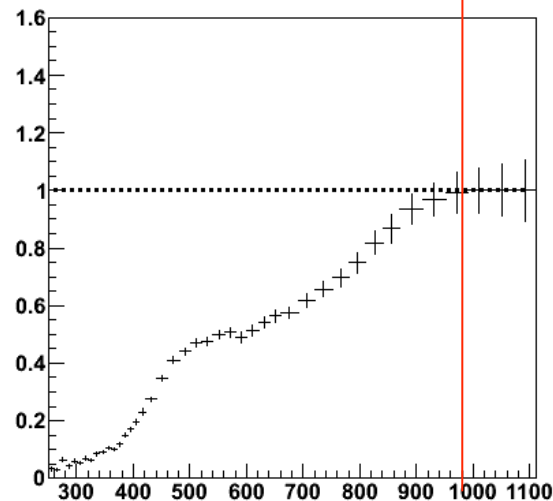
Proposal for Mass bins

❑ As we can see – the turn on points for AK5 and AK7 are not the same.

❑ For AK7 the turn-ons are a bit higher.

❑ Proposed mass bins:

Triggers	AK5	AK7	AK5	AK7
HLT_Jet15U	Remove	Remove	(*From Andreas*)	
HLT_Jet30U	250	260	240	260
HLT_Jet50U	380	420	340	360
HLT_Jet70U	450	500	440	480
HLT_Jet70U_v2	450	500		
HLT_Jet100U	620	660	580	640
HLT_Jet100U_v2	~620	700*		
HLT_Jet100U_v3	~620	660		
HLT_Jet140U_v1	820	660	780	820
HLT_Jet140U_v3	820	880		
HLT_Jet180U_v3	980	1060	1000	1040

General remarks

❑ Generally the turn ons are based on prescaled triggers wherever possible.
❑ for the _v2, _v3 triggers the statistics were limited as we had those triggers only for a certain duration of run time.
❑ With the new JSON release these statistics will increase.

❑ Main reason for the difference lies in the fact that Andreas's bins are a little aggressive – right at the turn on. And I have taken a more conservative approach.